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Building & Highway Material Testing Laboratory

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Job No.: CTCE/BBMP/KRIDL/W.No.13/BC/Stripping/2017-18 11.01.2018

TEST REPORT ON STRIPPING VALUEOF ROAD AGGREGATES (STATIC IMMERSION TEST)

*** Customer**	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
*** Agency**	:	**Technical Manager (West),** KRIDL, Bangalore.
*** Name of Work**	:	Improvements to Roads and asphalting at pipeline road left side and other roads in Mallasandra Ward No.13 in Shettyhalli Sub Division , BBMP, Bangalore.
*** Reference**	:	BBMP/EE/DD/WO/147/2017-18 Dated: 21.12.2017
Technical Reference	:	IS: 6241
*** Type of Mix**	:	Bituminous Concrete
Date of Testing	:	11.01.2018

Type of binder : 60/70
Percentage of binder used : 5.00% by wt.
Total weight of aggregate : 200 g
Total weight of binder : 10.00 g
Temperature of water-bath : 40° C

Observation Number	Stripping, Percentage	Average, Percentage	Average Retained Coating, %
1	2.9	3.07	96.93
2	3.2		
3	3.1		

*Information is furnished by the Customer/Representative.

Comments:

→ Minimum allowable Aggregate retained coating for Bituminous Concrete is 95%

Note:

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ನಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ಬಾಸವೇಶ್ವರನಗರ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ನಂ. ೧೮, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/KRIDL/W.No.13/BC/Sp_Wa/2017-18 11.01.2018

TEST REEPORT ON SPECIFIC GRAVITY AND WATER ABSORPTION

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and asphalting at pipeline road left side and other roads in Mallasandra Ward No.13 in Shettyhalli Sub Division , BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/147/2017-18 Dated: 21.12.2017
* Sample ID	:	Hot mix plant, Bangalore
Technical Reference	:	IS : 2386(Part -3)-1963 (RA-2011)
* Type of Mix	:	Bituminous Concrete
Date of Testing	:	11.01.2018

Sl. No.	Details	Notation	Test Number			Mean Value
			Test 1	Test 2	Test 3	
1	Weight of aggregate suspended in water with the basket	W_1 g	2009	2008	2007	
2	Weight of basket suspended in water	W_2 g	755	755	755	
3	Weight of saturated aggregate in water	$(W_1 - W_2) = W_s$ g	1239	1238	1252	
4	Weight of saturated surface dry aggregate in air	W_3 g	2004	2005	2006	
5	Weight of water equal to the volume of the aggregate	$(W_3 - W_S)$ g	765	767	754	
6	Weight of oven dried aggregate	W_4 g	1997	1996	1995	
7	Specific Gravity	$W_4/(W_3-W_S)$	2.610	2.602	2.646	2.620
8	Apparent Specific gravity	$W_4/(W_4-W_S)$	2.635	2.633	2.685	2.651
9	Water Absorption	$((W_3-W_4)*100)/W_4$	0.35%	0.45%	0.55%	0.45%

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Aggregate Water absorption value for Bituminous Concrete is 2.0%

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Job No: CTCE/BBMP/KRIDL/W.No.13/BC/Bitumen/2017-18 11.01.2018

TEST REPORT ON BITUMEN CONTENT OF BITUMINOUS CONCRETE MIX

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and asphalting at pipeline road left side and other roads in Mallasandra Ward No.13 in Shettyhalli Sub Division , BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/147/2017-18 Dated: 21.12.2017
* Sample ID	:	Pipeline roads in Mallasandra Ward No.13, BBMP, Bangalore.
Technical Reference	:	IRC:SP:11-1984
Date of Testing	:	11.01.2018

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	473	471
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	27	29.00
7. Bitumen content in %	5.40	5.80
8. Average	**5.60**	

*Information is furnished by the Customer/Representative.

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Job No: CTCE/BBMP/KRIDL/W.No.13/BC/Bitumen/2017-18 11.01.2018

TEST REPORT ON BITUMEN CONTENT AFTER GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and asphalting at pipeline road left side and other roads in Mallasandra Ward No.13 in Shettyhalli Sub Division , BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/147/2017-18 Dated: 21.12.2017
* Sample ID	:	Pipeline roads in Mallasandra Ward No.13, BBMP, Bangalore.
Technical Reference	:	IS 2386 and IRC:SP:11-1984
Date of Testing	:	11.01.2018

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	35.45	7.49	7.49	92.51	79-100
9.5	36.85	7.79	15.29	84.71	70-88
4.75	72.15	15.25	30.54	69.46	53-71
2.36	60.28	12.74	43.28	56.72	42-58
1.18	56.65	11.98	55.26	44.74	34-48
0.6	54.25	11.47	66.73	33.27	26-38
0.3	45.65	9.65	76.38	23.62	18-28
0.15	35.25	7.45	83.83	16.17	12-20
0.075	43.25	9.14	92.98	7.02	4-10

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	35.15	7.46	7.46	92.54	79-100
9.5	46.25	9.82	17.28	82.72	70-88
4.75	63.25	13.43	30.71	69.29	53-71
2.36	75.24	15.97	46.69	53.31	42-58
1.18	65.25	13.85	60.54	39.46	34-48
0.6	55.25	11.73	72.27	27.73	26-38
0.3	33.15	7.04	79.31	20.69	18-28
0.15	25.26	5.36	84.67	15.33	12-20
0.075	38.56	8.19	92.86	7.14	4-10

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Job No: CTCE/BBMP/KRIDL/W.No.13/BC/Bitumen/2017-18 12.01.2018

TEST REPORT ON BITUMEN CONTENT OF BITUMINOUS CONCRETE MIX

* Customer	:	**Asst. Executive Engineer,** Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	:	Improvements to Roads and asphalting at pipeline road left side and other roads in Mallasandra Ward No.13 in Shettyhalli Sub Division , BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/147/2017-18 Dated: 21.12.2017
* Sample ID	:	Pipeline roads in Mallasandra Ward No.13, BBMP, Bangalore.
Technical Reference	:	IRC:SP:11-1984
Date of Testing	:	12.01.2018

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
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2. Weight of Mixture after Test, g	473	472
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	27	28.00
7. Bitumen content in %	5.40	5.60
8. Average	**5.50**	

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